



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,697	06/26/2003	Tomasz Franciszek Wilk	RPS9.2003 0067 US1	5049
56102	7590	06/15/2007		
IBM (RPS-BLF) c/o BIGGERS & OHANIAN, LLP P.O. BOX 1469 AUSTIN, TX 78767-1469			EXAMINER DULANEY, BENJAMIN O	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 06/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/606,697	Applicant(s) WILK, TOMASZ FRANCISZEK	
	Examiner Benjamin O. Dulaney	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/26/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Non functional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32USPQ2d1031, 1035 (Fed Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 17660 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 12-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 12 defines a (computer program) embodying functional descriptive material. However, the claim does not previously define a computer-readable medium or memory and is thus non-statutory for that reason (i.e. "When functional descriptive material is recorded on some computer-

Art Unit: 2625

readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" -Guidelines Annex IV). That is the scope of the presently claimed (computer program, and algorithm, a medium, a program providing medium, a memory, etc... claimed) can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to state the "computer readable medium" **BEFORE** claiming the "computer program product". For example: "A computer readable medium storing instructions for a computer program product ...". Any amendment to the claim should commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 1) Claims 1, 3, 5-8, 10, 12, 17, 19, 21, 22 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 6,202,092 by Takimoto.
- 2) Regarding claims 1, 12 and 17, Takimoto teaches a data processing network, comprising: a first printer connected to a network medium (Figure 1, item 3); a set of print clients connected to the network medium, wherein each print client is enabled to

permit a user to submit a print job to the first printer (Column 4, lines 13-19); a first print job table to store information indicative of first printer capacity available to the user (Column 5, lines 3-14, table could be the number of pages allowed for each user such as in Figures 3a and 3b), the first print job table being stored in a computer readable medium (Column 4, lines 44-45); and computer code means for determining whether to accept a new print job submitted by the user based on a comparison of the size of the new print job and the user's available first printer capacity (Column 5, lines 3-14).

3) Regarding claims 3 and 19, Takimoto teaches the network of claim 1, wherein the code means further includes code means for updating the available capacity information (Column 5, lines 30-35).

4) Regarding claims 5 and 21, Takimoto teaches the network of claim 3, wherein the code means for updating the available capacity information is further characterized as code means for determining the actual amount of capacity required to process the user's pending print jobs (Column 5, lines 3-14).

5) Regarding claims 6 and 22, Takimoto teaches the network of claim 3, wherein the code means for updating the available capacity information includes code means for deleting a first print job table entry corresponding to the user responsive to determining that the user's available first printer capacity is equal to or greater than a predetermined threshold (Column 5, lines 16-19).

6) Regarding claim 7, Takimoto teaches the network of claim 1, wherein the first print job table includes an entry for every user authorized to submit print jobs to the first printer (Column 3, line 56).

A user without an ID cannot print, therefore there is an entry for everyone authorized to print.

7) Regarding claim 8, Takimoto teaches the network of claim 1, further comprising code means for rejecting a newly submitted print job if the size of the print job exceeds a predetermined maximum print job size associated with the printer (Column 5, lines 3-14).

If the user exceeds his/her quota (a predetermined maximum) then the print job is rejected. This quota is certainly "associated" with the printer in Takimoto.

8) Regarding claims 10 and 24, Takimoto teaches the network of claim 1, further comprising a first print server connected between the network medium and the first printer, wherein the first print job table and the computer code means are stored in a storage medium of the first print server (Column 4, lines 11-12; Figure 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9) Claims 2, 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,202,092 by Takimoto as applied to claim 1 above, and further in view of U.S. patent 5,819,047 by Bauer et al.

10) Regarding claims 2 and 18, Takimoto does not specifically teach the network of claim 1, wherein the available capacity information is indicative of the difference between a print quota associated with the user and the remaining size of all pending print jobs submitted by the user.

Bauer teaches the network of claim 1, wherein the available capacity information is indicative of the difference between a print quota associated with the user and the remaining size of all pending print jobs submitted by the user (Column 5, lines 3-15).

Takimoto and Bauer are combinable because they are both from the network printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takimoto with Bauer to add detection of pending jobs. The motivation for doing so would have been so that if a user is over quota "the user is denied consumption" (Column 5, line 14). Therefore it would have been obvious to combine Takimoto with Bauer to obtain the invention as specified by claims 2 and 18.

11) Regarding claim 9, Takimoto does not specifically teach the network of claim 1, further comprising a second printer connected to the network and available to the user for submitting print jobs and a second print job table to store information indicative of second printer capacity available to the user, the second print job table being stored in a computer readable medium.

Bauer teaches the network of claim 1, further comprising a second printer connected to the network and available to the user for submitting print jobs and a second print job table to store information indicative of second printer capacity available

to the user, the second print job table being stored in a computer readable medium (Column 4, lines 58-67; Figure 2).

Takimoto and Bauer are combinable because they are both from the network printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takimoto with Bauer to add more printers. The motivation for doing so would have been to have access to a wider range of printing capabilities. Therefore it would have been obvious to combine Takimoto with Bauer to obtain the invention as specified by claim 9.

12) Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,202,092 by Takimoto as applied to claim 3 above, and further in view of U.S. patent 5,777,882 by Salgado.

13) Takimoto does not specifically teach the network of claim 3, wherein the code means for updating the available capacity information includes code means for periodically adjusting the available capacity information of each user based on an approximation of the amount of print processing that has occurred since a previous period.

Salgado teaches the network of claim 3, wherein the code means for updating the available capacity information includes code means for periodically adjusting the available capacity information of each user based on an approximation of the amount of

Art Unit: 2625

print processing that has occurred since a previous period (Column 18, line 51 – Column 19, line 12).

Takimoto and Salgado are combinable because they are both from the network printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takimoto with Bauer to add adjusting capacity based on user history. The motivation for doing so would have been to assign more capacity to a user “on the basis of frequency of use” (Column 19, line 39). Therefore it would have been obvious to combine Takimoto with Salgado to obtain the invention as specified by claims 4 and 20.

14) Claims 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,202,092 by Takimoto.

Regarding claims 11 and 23, Takimoto does not specifically teach the network of claim 1, wherein the first print job table and the computer code means are stored in a storage medium of the first printer.

Examiner takes official notice that storing user print data on a printer is obvious and well known to one of ordinary skill in the art. The motivation for doing this with Takimoto would be to eliminate the need for a separate server.

15) Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,202,092 by Takimoto as applied to claim 12 above, and further in view of U.S. patent 7,167,260 by Iwata et al.

16) Regarding claim 13, Takimoto does not specifically teach the computer program product of claim 12, wherein the code means for comparing includes code means for accessing a first print job table containing a set of entries wherein each entry corresponds to a respective user and is indicative of the size of any pending print jobs submitted by the user.

Iwata teaches the computer program product of claim 12, wherein the code means for comparing includes code means for accessing a first print job table containing a set of entries wherein each entry corresponds to a respective user and is indicative of the size of any pending print jobs submitted by the user (Column 32, lines 11-25; Figure 17).

Takimoto and Iwata are combinable because they are both from the network printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takimoto with Iwata to add a print table indicating size. The motivation for doing so would have been to inform the user. Therefore it would have been obvious to combine Takimoto with Iwata to obtain the invention as specified by claim 13.

17) Regarding claim 14, Takimoto does not specifically teach the computer program product of claim 13, wherein the code means for comparing further includes code

means for modifying the first print job table to reflect changes in the size of any pending print jobs submitted by the user.

Iwata teaches the computer program product of claim 13, wherein the code means for comparing further includes code means for modifying the first print job table to reflect changes in the size of any pending print jobs submitted by the user (Column 32, lines 11-25; Figure 17).

Takimoto and Iwata are combinable because they are both from the network printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takimoto with Iwata to add a print table remaining sheets to be printed. The motivation for doing so would have been to inform the user. Therefore it would have been obvious to combine Takimoto with Iwata to obtain the invention as specified by claim 14.

18) Regarding claim 15, Takimoto teaches the computer program product of claim 14, wherein the code means for modifying the first print job table includes code means for deleting a user's entry in the first print job table responsive to determining that the user's available capacity is equal to or greater than a threshold value (Column 5, lines 16-19).

19) Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,202,092 by Takimoto and further in view of U.S. patent 7,167,260 by Iwata et

al. as applied to claim 14 above, and further in view of U.S. patent 7,158,244 by Sommer et al.

Takimoto (as modified by Iwata) does not specifically teach the computer program product of claim 14, wherein the code means for modifying the first print job table to reflect changes in the size of any pending print jobs includes code means for estimating progress made on the pending print jobs based at least in part on the amount of time elapsed since submission of the print job.

Sommer teaches the computer program product of claim 14, wherein the code means for modifying the first print job table to reflect changes in the size of any pending print jobs includes code means for estimating progress made on the pending print jobs based at least in part on the amount of time elapsed since submission of the print job (Column 9, lines 55-60).

Takimoto (as modified by Iwata) and Sommer are combinable because they are both from the network printing field of endeavor.

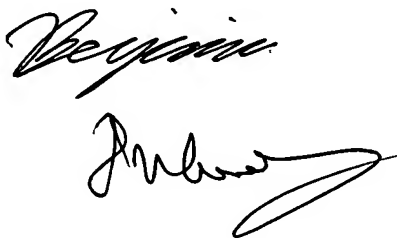
It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takimoto (as modified by Iwata) with Sommer to add time estimate. The motivation for doing so would have been to inform the user. Therefore it would have been obvious to combine Takimoto (as modified by Iwata) with Sommer to obtain the invention as specified by claim 16.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin O. Dulaney whose telephone number is (571) 272-2874. The examiner can normally be reached on Monday - Friday (9am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KING Y. POON
PRIMARY EXAMINER